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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/343,517	06/30/1999	ROBERT BURNETT	A7489	8018

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EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 03/22/2004

20

Please find below and/or attached an Office communication concerning this application or proceeding.

P24

Office Action Summary

Application No.

09/343,517

Applicant(s)

BURNETT, ROBERT

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/16/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. **Claims 1, 3-6 and 24-26** as amended are still in consideration for this application.

Applicant has amended claims **1, 3, and 5**.

2. Examiner does **not withdraw** the obviousness rejection to *Mazzola* in view of *Katz* for Office action filed **09/24/03**. In addressing applicant's arguments in the response filed **02/24/04**, applicant argues that the limitation

“translating IP packets for transmission over a DCC channel in overhead synchronous optical frames”

is not taught by the references. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant's invention is related to routing an IP packet to an IP tunnel layer network interface, wherein the IP tunnel network interface translates the IP packet to a second protocol to be translated over a data communications channel (DCC) in overhead frames in the synchronous optical network to a remote IP gateway connected to an IP device. In particular, applicant discloses that the second protocol is CLNP. Specifically, applicant's summary discloses the following:

“The present invention obviates the above deficiencies of the known techniques by tunneling management data and other information to and from remotely located IP NEs

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via the SONET DCC by placing IP over the Connection Less Network Protocol (CLNP) that is present in OSI" [Applicant's specification pages 2-3].

As such, *Mazzola* may be silent or deficient to running IP over SONET, but *Mazzola* discloses running CNLP over SONET using the DCC channel. *Katz* teaches mapping IP over CLNP (i.e., a broad but reasonable interpretation of IP over CLNP per applicant's quote above). Thus the references in combination teach running IP over CLNP using a DCC channel for SONET (see rejection below). Examiner has also "cleaned up" the rejection below in order to make the rejection in better format for appeal.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 3-6, and 24-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,461,624 to *Mazzola* in view of "TUBA: Replacing IP with CLNP" by *Katz et al.* ("Katz").

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*

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d) an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.

As such to **claims 1, 5-6, and 24-26**, for step (a) *Mazzola* discloses IS gateway devices in figure 2b where the protocols for the gateway devices are disclosed in figure 4b. *Mazzola* clearly discloses routing CLNP over SONET using a DCC channel as is known in the art (see figure 4a).

For step (b) *Mazzola* is silent or deficient to routing IP over SONET (i.e., a “synchronous optical network”).

Katz cure the deficiency by disclosing that IP maps (i.e., “translates”) to CLNP [see section “Mapping IP functionality to CLNP” starting on page 44 of *Katz*].

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Mazzola* by placing IP over the CLNP such that IP is transmitted over a DCC channel in the overhead of a synchronous optical frame.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include the further limitation placing IP over the Connection Less Network Protocol (CLNP). *Katz* also helps cure the deficiency by disclosing that IP maps (i.e., “translates”) to CLNP [see section “Mapping IP

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functionality to CLNP” starting on page 44 of *Katz*. In particular, *Katz* teaches “most functions of IP map directly to matching functions in CLNP”[page 44, middle right-hand column]. Thus *Katz* provides a relationship and thus provides a motivation by not only mapping IP and CLNP but also providing a mechanism for routing the two protocols [page 38] using an approach called TCP and UDP with Bigger Addresses (TUBA). Examiner notes *Katz*’s motivation for mapping IP and CLNP (see figure 10 of *Katz* on page 45) is due to problems with Internet growth and IP addressing. Examiner first notes that *Mazzola* provides a reasonable expectation of success by disclosing for illustrative purposes, the block diagrams (Fig. 4a and 4b) are specific for a SONET application; however, the method disclosed in a patent may be used in connection with other protocols as well for the physical layer, data layer, and network layer (e.g., examiner notes another protocol at the network layer to be IP) [column 5, lines 7-25]. Examiner notes with the mapping, the rest of the limitations fall into place given the combined teachings of both references. Specifically, shown in Figure 8 of *Katz* is interarea routing for CLNP using IS-IS at the core and ES-IS at the edge. Furthermore, *Mazzola* also discloses routing for SONET/CLNP using ES-IS [column 1, lines 20-25]. Thus in summary, *Mazzola* discloses CLNP running over SONET-OSI (as is known in the art) and *Katz et al.* discloses IP running over “CLNP” thus IP can “run” over CLNP which runs over SONET-OSI. It would have been furthermore obvious to implement this knowledge over a set of routers in a network forming both a local gateway and a remote gateway as is well known in the art given a reasonable but broad interpretation of the claimed subject matter, and based on the examples provided by both references (e.g.,

shown in figure 2a of *Mazzola* and figure 6 of *Katz et al.*). Again, the motivation being that the Internet consists of more than one router as is well known in the art which forms local and remote gateways respectively (which could be directly or not directly attached) for a local and remote host.

Mazzola discloses a method for distributing routing between network elements for CLNP. *Katz et al.* provides mapping IP to CLNP. As both references revolve around CLNP there exists a motivation for combining the subject matter as a whole for both references for the purpose of making this rejection.

As to **claims 3, 4**, specifically, data is routed using CLNP, and a tunnel is created using a reasonable but broad interpretation of the claimed subject matter. In addition, both *Mazzola* and *Katz et al.* disclose NSAP addressing. Examiner notes that EI-IS and IS-IS contain routing table(s). Furthermore, *Katz et al.* discloses mapping IP to NSAP addressing [pages 40-41]. As IP can be replaced by CLNP it is possible for the two to coexist.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663


DWF


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 3/18/08